AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 7 (currently amended): A method of producing a material for a heat dissipation substrate for mounting a semiconductor chip, comprising the steps of:

press-forming molybdenum powder having an average particle size of 2-5μm at a pressure of 100-200 MPa to obtain a molybdenum powder compact,

impregnating melted copper into a void between powder particles of the molybdenum powder compact in a nonoxidizing atmosphere at 1200-1300°C to obtain a composite of molybdenum and copper which contains 70-60% molybdenum in weight ratio, the balance copper, ~~and~~

primary rolling the composite ~~at a working rate of at least 60% to produce a rolled composite, the rolled composite having a coefficient of linear expansion of 8.3 x 10^-6/K or less at 800°C which is matched with that of the semiconductor chip in a final rolling direction~~ in one direction as a first rolling direction at a temperature of 100-300°C and at a working rate of 50% or more;

secondary rolling the composite as cold rolling in a direction intersecting with the one direction as a second rolling direction at a working rate of 50% or more after the step of primary rolling,

wherein a total working rate is 75% or more when primary rolling and secondary rolling so as to produce a rolled composite of molybdenum and copper which has an isotropic coefficient of linear expansion in the first and the second rolling direction.

Claim 8 (currently amended): A method ~~of producing a material for a semiconductor-mounting heat dissipation substrate~~ as claimed in claim 7, wherein said steps of primary and secondary rolling ~~comprises the sub-steps of primary rolling~~ are carried out ~~in one direction at a temperature of 100-300°C and at a working rate of 50% or more, and secondary rolling carried~~

~~out as cold rolling in a direction intersecting with the one direction at a working rate of 50% or more, a total working rate being 75% or more, thereby producing a rolled composite of molybdenum and copper which has a coefficient of linear expansion of 7.2-8.3 x 10^-6/K at 800°C in the secondary rolling direction.~~ alternating repeatedly so as to extend particles of molybdenum contained in the composite to the first and the second rolling directions and form the particles into a flat shape.

Claim 9 (currently amended): A method ~~of producing a material for a~~ as claimed in claim 7, further comprising the step of ~~press-forming molybdenum powder having an average particle size of 2-5μm at a pressure of 100-200 MPa to obtain a molybdenum powder compact~~;

~~impregnating melted copper into a void between powder particles of the molybdenum powder compact in a nonoxidizing atmosphere at 1200-1300°C to obtain a composite of molybdenum and copper which contains 70-60% molybdenum in weight ratio, the balance copper;~~

~~rolling the composite at a working rate of at least 60% to produce a rolled composite, the rolled composite having a coefficient of linear expansion of 8.3 x 10^-6/K or less at 800°C which is matched with that of the semiconductor chip in a final rolling direction; and~~

press-bonding copper plates to both surfaces of the rolled composite to obtain a substrate for a semiconductor-mounting heat dissipation substrate having a copper-clad.

Claim 10 (currently amended) A method ~~of producing a material for a semiconductor-mounting heat dissipation substrate~~ as claimed in claim 9, wherein said step of primary and secondary rolling the copper-molybdenum composite as an intermediate layer is carried out with the ratio of copper and molybdenum and ~~the~~ a reduction percentage controlled so that a resultant rolled composite has a coefficient of linear expansion, ~~equal to 8.3 x 10^-6/K or less at 400°C,~~ and thereafter the step of press-bonding copper on both surfaces of the rolled composite is carried out to obtain a copper-clad rolled composite having a controlled coefficient of linear expansion ~~of 9.0 x 10^-6/K or less at 400°C~~.

Claim 11 (currently amended): A method ~~of producing a material for a semiconductor mounting heat dissipation substrate~~ as claimed in claim 9, wherein said step of rolling the copper-molybdenum composite as an intermediate layer is carried out with the ratio of copper and molybdenum and ~~the~~ a reduction percentage controlled so that a resultant rolled composite has a coefficient of linear expansion ~~of 8.3×10^{-6}/K or less at 800°C~~, and thereafter said step of press bonding copper on both surfaces of the copper-molybdenum composite is carried out to obtain a copper-clad rolled composite having a coefficient of linear expansion ~~of 9.0×10^{-6}/K or less at 800°C~~.

Claim 12 (currently amended): A method of producing a ceramic package, comprising :

press-forming molybdenum powder having an average particle size of 2-5μm at a pressure of 100-200 MPa to obtain a molybdenum powder compact~~,~~ ;

impregnating melted copper into a void between powder particles of the molybdenum powder compact in a ~~non-oxidizing~~ nonoxidizing atmosphere at 1200-1300°C to obtain a copper-molybdenum composite containing 70-60% molybdenum in weight ratio, the balance copper~~,~~ ;and

primary rolling the composite ~~at a working rate of at least 60% to produce a rolled composite having a coefficient of linear expansion of 8.3×10^{-6}/K or less at 800°C in a final rolling direction;~~ in one direction as a first rolling direction at a temperature of 100-300°C and at a working rate of 50% or more;

secondary rolling the composite as cold rolling in a direction intersecting with the one direction as a second rolling direction at a working rate of 50% or more after the step of primary rolling;

press-bonding copper plates to both surfaces of the rolled composite to obtain a copper-clad rolled composite ~~having a coefficient of linear expansion of 9.0×10^{-6}/K or less at 800°C;~~ and

directly brazing the copper-clad rolled composite with ceramic having a metal layer affixed to a surface of the ceramic.